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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & RICHARDSON PC
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER

TSEGAYE, SABA

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/730,513		WIRYAMAN ET AL.	
	Examiner		Art Unit	
	Saba Tsegaye		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action is in response to the amendment filed 02/15/06. Claims 1-31 and 33-35 are pending. Currently no claims are in condition for allowance.

Claim Objections

2. Claims 14-18 and 35 are objected to because of the following informalities:

In claims 14-18, the phrases "a second mode" and "a third mode" are confusing because there is no mention of an initial mode. In claim 35, a period is missing. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Regarding claims 1 and 19, the phrase "capable of" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

5. Claims 1-31 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito (US 6,345,039 B1) in view of Chapman et al. (US 6,023,456).

Regarding claims 1, 14-16, 19, 25-27, 31 and 33, Ito discloses a method for processing communication in a device having a first interface (101, 105); a rate calculation circuit (101), a

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transmitting buffer (102) (*claimed controlling a rate of arrival of the data packets at the first interface...*); an RM cell processing circuit (103); a transmission rate determining unit (198) and a transmission rate changing unit (199); a second interface (106, 104) (*claimed transmitting the accepted packets through the second interface...*). Further, Ito disclose that RM cell processing circuit (103) sets the transferable transmission rate at the time of relaying the data traffic controlling cell, and notifies the data ATM terminal (*claimed sending control information from the device to at least one of a plurality of other devices to effect the rate of arrival*) of the transferable transmission rate via data traffic ATM line terminating unit (column 4, lines 29-46; column 11, lines 41-48). However, Ito does not expressly disclose: identifying one of a plurality of classes; queuing packets according to the identified class; and transmitting packets according a policy associated with at least one of the plurality of classes of data flows.

Chapman teaches, in fig. 1 and 6, a plurality queues 10 (at least one for each class); an identifier 12 that identifies packet (using IP address, ports and protocol); and a controller 14 (claimed scheduler) characterizes a flow (using rate, duration, etc) and assigns it a class. The controller refers to a **database 16** (claimed storage for configuration data) and uses output scheduling to allocate bandwidth among classes and implements and admission control policy for a class before delivering an output stream toward downstream nodes (column 3, lines 11-25; column 6, line 62, line 7, line 14). Furthermore, Chapman teaches, in Fig. 7, that the classification REJECT can be reflected back from the destination host to a source host (column 7, lines 15-17)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a method that identifies on of a plurality of classes of data flows associate with

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data packets and queuing the data packets according to the identified class and transmit the packets according a policy associated with at least one of the plurality of classes of data flows, such as suggested by Chapman, to the method of Ito in order to provide a method of and apparatus for controlling a delivery of a traffic downstream according to quality of service parameters.

Regarding claims 2-4, Chapman teaches that identifying individual traffic flow requires inspection of addresses and protocol port number for both source and destination (column 3, lines 41-53).

Regarding claims 10, 11 and 20, Chapman teaches the method wherein the communication device communicates with devices over the first interface and the second interface as a data link layer bridge (column 3, lines 26-40).

Regarding claim 34 and 35, Chapman teaches the method wherein controlling the rate of arrival of data packets comprises: controlling a window size of a class of data flows, the class being one of the plurality of classes; determining a portion of the window size to be allocated to each of the data flows of the class (column 3, line 55-column 4, line 11).

6. Claims 5-9, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito in view of Chapman et al. as applied to claims 1 and 19 above, and further in view of Epstein et al. (US 6,684,329).

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Ito in view of Chapman discloses all the claim limitations as stated above except for: passing the accepted packets to a proxy application hosted in the communication device and queuing records associated with the accepted packets (as in claims 5-9, 21 and 22); the proxy application performs a data multiplexing function (as in claim 28); the proxy application performs a data compression function (as in claim 29); and the proxy application performs a voice over IP function (as in claim 30).

Epstein teaches, in Figs. 2 and 4, a proxy server that includes a plurality of proxy applications such as HTTP, SMTP, FTP. . . (as in claims 5-8 and 21) (column 3, lines 13-35; column 6, lines 18-65). Fig. 5 illustrates the components of a multi-part proxy 510 (column 7, line 66-column 8, line 55) (as in claim 22). Further, Epstein teaches, in Fig. 7, queuing and dequeuing components (as in claim 9).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a proxy application, such as that suggested by Epstein, in the communication device Ito in view of Chapman. The motivation would have been that a proxy application can improve performance by supplying different functions such as network security, lower user response time, and lower network utilization.

7. Claims 5 and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito in view of Chapman et al. as applied to claims 1 and 19 above, and further in view of Dillon et al. (US 6,658,463).

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Ito in view of Chapman discloses all the claim limitations as stated above except for: a proxy application performs a data multiplexing function; a data compression function and a voice over IP function.

Dillon teaches a proxy protocol (as in claim 5) which performs transaction multiplexing which prevents a single stalled request from stalling other requests (as in claim 28); performs homogenized content compression which intelligently compresses HTTP request and response headers (as in claim 29); and a dialup access internet network (as in claim 30).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a proxy application, such as that suggested by Dillon, in the communication device of Ito in view of Chapman. The motivation would have been that a proxy application can improve performance by supplying different functions such as network security, lower user response time, and lower network utilization.

8. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito in view of Chapman et al. as applied to claims 1 and 19 above, and further in view of Kloth (US 6,598,034).

Ito in view of Chapman et al. discloses all the claim limitations as stated above except for a graphical user interface.

Kloth teaches a method and apparatus for classifying data packets and processing them to a set of rules. Further, Kloth teaches that the rules can be edited or developed via an appropriate graphical interface.

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It would have been obvious to one ordinary skill in the art at the time the invention was made to add a graphical user interface, such as that suggested by Kloth, in the communication device of Ito in view of Chapman in order to provide interaction for entering and revising the rules (column 9, lines 30-36).

9. Claims 17, 18, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito in view of Chapman et al. as applied to claims 1 and 19 above, and further in view of Frey (4,245,343).

Ito in view of Chapman discloses all the claim limitations as stated above except for directly connecting the first interface to the second interface in the event of a fault at the communication device (as in claims 17 and 18) and a hub for coupling the first interface to both the second interface (as in claim 24).

Regarding claims 17 and 18, Frey teaches a system that automatically bypassing an inoperative data terminal (column 4, lines 33-41).

It would have been obvious to one ordinary skill in the art at the time the invention was made to add a system that directly connects the first and the second interface, such as that suggested by Frey, in the system of Ito in view of Chapman in order to provide a means for bypassing an inoperative terminal as well as providing for non-disruptive communication system.

Regarding claim 24, Ito in view of Chapman and Frey does not expressly disclose a hub.

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However, It would have been obvious to one ordinary skill in the art at the time the invention was made to add a hub in the system of Ito in view of Chapman and Frey in order to provide a common connection to all devices on the network.

Response to Arguments

10. Applicant's arguments with respect to claims 1-31 and 33-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
May 12, 2006



DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600